



SEQUENCE LISTING

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<120> Vascular Endothelial Growth Factor-X

<130> 51935/004

<140> US/09/869,198

<141> 2001-06-21

<150> GB 9828377.3

<151> 1998-12-22

<150> US 60/124,967

<151> 1999-03-18

<150> US 60/164,131

<151> 1999-11-08

<160> 97

<170> PatentIn Ver. 2.0

<210> 1

<211> 323

<212> PRT

<213> Homo sapiens

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Glu Ser Asn Leu Ser Ser Lys Phe Gln Phe Ser Ser Asn Lys Glu Gln
1 5 10 15

Tyr Gly Val Gln Asp Pro Gln His Glu Arg Ile Ile Thr Val Ser Thr
20 25 30

Asn Gly Ser Ile His Ser Pro Arg Phe Pro His Thr Tyr Pro Arg Asn
35 40 45

Thr Val Leu Val Trp Arg Leu Val Ala Val Glu Glu Asn Val Trp Ile
50 55 60

Gln Leu Thr Phe Asp Glu Arg Phe Gly Leu Glu Asp Pro Glu Asp Asp
65 70 75 80

Ile Cys Lys Tyr Asp Phe Val Glu Val Glu Glu Pro Ser Asp Gly Thr
85 90 95

Ile Leu Gly Arg Trp Cys Gly Ser Gly Thr Val Pro Gly Lys Gln Ile
100 105 110

Ser Lys Gly Asn Gln Ile Arg Ile Arg Phe Val Ser Asp Glu Tyr Phe
 115 120 125
 Pro Ser Glu Pro Gly Phe Cys Ile His Tyr Asn Ile Val Met Pro Gln
 130 135 140
 Phe Thr Glu Ala Val Ser Pro Ser Val Leu Pro Pro Ser Ala Leu Pro
 145 150 155 160
 Leu Asp Leu Leu Asn Asn Ala Ile Thr Ala Phe Ser Thr Leu Glu Asp
 165 170 175
 Leu Ile Arg Tyr Leu Glu Pro Glu Arg Trp Gln Leu Asp Leu Glu Asp
 180 185 190
 Leu Tyr Arg Pro Thr Trp Gln Leu Leu Gly Lys Ala Phe Val Phe Gly
 195 200 205
 Arg Lys Ser Arg Val Val Asp Leu Asn Leu Leu Thr Glu Glu Val Arg
 210 215 220
 Leu Tyr Ser Cys Thr Pro Arg Asn Phe Ser Val Ser Ile Arg Glu Glu
 225 230 235 240
 Leu Lys Arg Thr Asp Thr Ile Phe Trp Pro Gly Cys Leu Leu Val Lys
 245 250 255
 Arg Cys Gly Gly Asn Cys Ala Cys Cys Leu His Asn Cys Asn Glu Cys
 260 265 270
 Gln Cys Val Pro Ser Lys Val Thr Lys Lys Tyr His Glu Val Leu Gln
 275 280 285
 Leu Arg Pro Lys Thr Gly Val Arg Gly Leu His Lys Ser Leu Thr Asp
 290 295 300
 Val Ala Leu Glu His His Glu Glu Cys Asp Cys Val Cys Arg Gly Ser
 305 310 315 320
 Thr Gly Gly

<210> 2

<211> 345

<212> PRT

<213> Homo sapiens

<400> 2

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 20 25 30
 Ser Ser Asn Lys Glu Gln Tyr Gly Val Gln Asp Pro Gln His Glu Arg
 35 40 45

Ile Ile Thr Val Ser Thr Asn Gly Ser Ile His Ser Pro Arg Phe Pro
 50 55 60
 His Thr Tyr Pro Arg Asn Thr Val Leu Val Trp Arg Leu Val Ala Val
 65 70 75 80
 Glu Glu Asn Val Trp Ile Gln Leu Thr Phe Asp Glu Arg Phe Gly Leu
 85 90 95
 Glu Asp Pro Glu Asp Asp Ile Cys Lys Tyr Asp Phe Val Glu Val Glu
 100 105 110
 Glu Pro Ser Asp Gly Thr Ile Leu Gly Arg Trp Cys Gly Ser Gly Thr
 115 120 125
 Val Pro Gly Lys Gln Ile Ser Lys Gly Asn Gln Ile Arg Ile Arg Phe
 130 135 140
 Val Ser Asp Glu Tyr Phe Pro Ser Glu Pro Gly Phe Cys Ile His Tyr
 145 150 155 160
 Asn Ile Val Met Pro Gln Phe Thr Glu Ala Val Ser Pro Ser Val Leu
 165 170 175
 Pro Pro Ser Ala Leu Pro Leu Asp Leu Leu Asn Asn Ala Ile Thr Ala
 180 185 190
 Phe Ser Thr Leu Glu Asp Leu Ile Arg Tyr Leu Glu Pro Glu Arg Trp
 195 200 205
 Gln Leu Asp Leu Glu Asp Leu Tyr Arg Pro Thr Trp Gln Leu Leu Gly
 210 215 220
 Lys Ala Phe Val Phe Gly Arg Lys Ser Arg Val Val Asp Leu Asn Leu
 225 230 235 240
 Leu Thr Glu Glu Val Arg Leu Tyr Ser Cys Thr Pro Arg Asn Phe Ser
 245 250 255
 Val Ser Ile Arg Glu Glu Leu Lys Arg Thr Asp Thr Ile Phe Trp Pro
 260 265 270
 Gly Cys Leu Leu Val Lys Arg Cys Gly Gly Asn Cys Ala Cys Cys Leu
 275 280 285
 His Asn Cys Asn Glu Cys Gln Cys Val Pro Ser Lys Val Thr Lys Lys
 290 295 300
 Tyr His Glu Val Leu Gln Leu Arg Pro Lys Thr Gly Val Arg Gly Leu
 305 310 315 320
 His Lys Ser Leu Thr Asp Val Ala Leu Glu His His Glu Glu Cys Asp
 325 330 335
 Cys Val Cys Arg Gly Ser Thr Gly Gly
 340 345

<210> 3
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 gtacaagatc ctcagcatga gagaattatt actgtgtcta ctaatggaag tattcacagc 180
 ccaagggttc ctcatactta tccaagaaat acggtcttgg tatggagatt agtagcagta 240
 gaggaaaatg tatggataca acttacgttt gatgaaagat ttgggcttga agaccagaa 300
 gatgacatat gcaagtatga tttttagtaa gttgaggaac ccagtgatgg aactatatta 360
 gggcgctggg gtggttctgg tactgtacca ggaaaacaga tttctaaagg aaatcaaatt 420
 aggataagat ttgtatctga tgaatatatt ccttctgaac cagggttctg catccactac 480
 aacattgtca tgccacaatt cacagaagct gtgagtcctt cagtgtacc cccttcagct 540
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 cgatatcttg aaccagagag atggcagttg gacttagaag atctatatag gccaaacttg 660
 caacttcttg gcaaggcttt tgtttttgga agaaaatcca gagtgggtga tctgaacctt 720
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 gaagaactaa agagaaccga taccattttc tggccagggt gtctcctggg taaacgctgt 840
 ggtgggaact gtgcctgttg tctccacaat tgcaatgaat gtcaatgtgt cccaagcaaa 900
 gttactaaaa aataccacga ggtccttcag ttgagaccaa agaccggtgt caggggattg 960
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 gggagcacag gagga 1035

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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: primer

<400> 4
 aaaatgtatg gatacaactt ac 22

<210> 5
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:primer

<400> 5
 gtttgatgaa agatttgggc ttg 23

<210> 6
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 6 tttctaaagg aaatcaaatt ag	22
<210> 7 <211> 20 <212> DNA <213> Artificial Sequence	
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<400> 7 gataagattt gtatctgatg	20
<210> 8 <211> 17 <212> DNA <213> Artificial Sequence	
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<400> 8 gatgtctcct ctttcag	17
<210> 9 <211> 18 <212> DNA <213> Artificial Sequence	
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<400> 9 gcacaactcc taattctg	18
<210> 10 <211> 18 <212> DNA <213> Artificial Sequence	
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<400> 10 agcacctgat tccgttgc	18
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<400> 11 tagtacatag aatgttctgg	20

<210> 12
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 <220>
 <223> Description of Artificial Sequence: primer

 <400> 12
 aagagacata cttctgtac 19

 <210> 13
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:primer

 <400> 13
 ccaggtacaa taagtgaact g 21

 <210> 14
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:primer

 <400> 14
 cctttagaaa tctgttttcc tggtagac 28

 <210> 15
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:primer

 <400> 15
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 <210> 16
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:primer

 <400> 16
 ggtccagtgg caaagctgaa gg 22

 <210> 17

<211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:primer

 <400> 17
 ctggttcaag atatcgaata aggtcttcc 29

 <210> 18
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:primer

 <400> 18
 tttgtttaaa ccttgggaaa ctgg 24

 <210> 19
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 <212> DNA
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 <220>
 <223> Description of Artificial Sequence:primer

 <400> 19
 gtccaggttt tgctttgatc c 21

 <210> 20
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:primer

 <400> 20
 aattggatcc gagagtgggtg gatctgaacc 30

 <210> 21
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:primer

 <400> 21
 aattggatcc gggaagaaaa tccagagtgg 30

 <210> 22
 <211> 40
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 22

ggttgaattc attatTTTTT agtaactttg cttgggacac 40

<210> 23

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 23

aattgaattc attatcctcc tgtgctcct c 31

<210> 24

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer

<400> 24

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<210> 25

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer

<400> 25

aattgaattc gctatcctcc tgtgctcct ctgc 34

<210> 26

<211> 111

<212> PRT

<213> Homo sapiens

<400> 26

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Gly	Ser	Ile	His	Ser	Pro	Arg	Phe	Pro	His	Thr	Tyr	Pro	Arg	Asn	Thr
			20						25					30	

Val	Leu	Val	Trp	Arg	Leu	Val	Ala	Val	Glu	Glu	Asn	Val	Trp	Ile	Gln
			35				40					45			

Leu Thr Phe Asp Glu Arg Phe Gly Leu Glu Asp Pro Glu Asp Asp Ile

50	55	60
Cys Lys Tyr Asp Phe Val Glu Val Glu Glu Pro Ser Asp Gly Thr Ile		
65	70	75 80
Leu Gly Arg Trp Cys Gly Ser Gly Thr Val Pro Gly Lys Gln Ile Ser		
	85	90 95
Lys Gly Asn Gln Ile Arg Ile Arg Phe Val Ser Asp Glu Tyr Phe		
	100	105 110

<210> 27
 <211> 168
 <212> PRT
 <213> Homo sapiens

<400> 27
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His His His Glu Ser Asn Leu Ser Ser Lys Phe Gln Phe Ser Ser Asn
20 25 30
Lys Glu Gln Asn Gly Val Gln Asp Pro Gln His Glu Arg Ile Ile Thr
35 40 45
Val Ser Thr Asn Gly Ser Ile His Ser Pro Arg Phe Pro His Thr Tyr
50 55 60
Pro Arg Asn Thr Val Leu Val Trp Arg Leu Val Ala Val Glu Glu Asn
65 70 75 80
Val Trp Ile Gln Leu Thr Phe Asp Glu Arg Phe Gly Leu Glu Asp Pro
85 90 95
Glu Asp Asp Ile Cys Lys Tyr Asp Phe Val Glu Val Glu Glu Pro Ser
100 105 110
Asp Gly Thr Ile Leu Gly Arg Trp Cys Gly Ser Gly Thr Val Pro Gly
115 120 125
Lys Gln Ile Ser Lys Gly Asn Gln Ile Arg Ile Arg Phe Val Ser Asp
130 135 140
Glu Tyr Phe Pro Ser Glu Pro Gly Phe Cys Ile His Tyr Asn Ile Val
145 150 155 160
Met Pro Gln Phe Thr Glu Ala Val
165

<210> 28
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 <212> DNA
 <213> Homo sapiens

<400> 28
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cctcagcatg agagaattat tactgtgtct actaatggaa gtattcacag cccaagggtt 180
cctcactactt atccaagaaa tacggtcttg gtatggagat tagtagcagt agaggaaaat 240
gtatggatac aacttacgtt tgatgaaaga tttgggcttg aagaccaga agatgacata 300
tgcaagtatg attttgtaga agttgaggaa cccagtgatg gaactatatt agggcgctgg 360
tgtggttctg gtactgtacc aggaaaacag atttctaaag gaaatcaaat taggataaga 420
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atgccacaat tcacagaagc tgtg 504

<210> 29
<211> 132
<212> PRT
<213> Homo sapiens

<400> 29
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Gly Arg Lys Ser Arg Val Val Asp Leu Asn Leu Leu Thr Glu Glu Val
20 25 30
Arg Leu Tyr Ser Cys Thr Pro Arg Asn Phe Ser Val Ser Ile Arg Glu
35 40 45
Glu Leu Lys Arg Thr Asp Thr Ile Phe Trp Pro Gly Cys Leu Leu Val
50 55 60
Lys Arg Cys Gly Gly Asn Cys Ala Cys Cys Leu His Asn Cys Asn Glu
65 70 75 80
Cys Gln Cys Val Pro Ser Lys Val Thr Lys Lys Tyr His Glu Val Leu
85 90 95
Gln Leu Arg Pro Lys Thr Gly Val Arg Gly Leu His Lys Ser Leu Thr
100 105 110
Asp Val Ala Leu Glu His His Glu Glu Cys Asp Cys Val Cys Arg Gly
115 120 125
Ser Thr Gly Gly
130

<210> 30
<211> 300
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (41)

<220>
 <221> n = a, t, g or c
 <222> (293)

<400> 30
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 gggagcacag gaggatagcc gcatcaccac cagcagctct tgcccagagc tgtgcagtgc 120
 agtggctgat tctattagag aacgtatgcg ttatctccat ccttaatctc agttgtttgc 180
 ttcaaggacc tttcatcttc aggatttaca gtgcattctg aaagaggaga catcaaacag 240
 aattaggagt tgtgcaacag ctcttttgag aggaggctaa aggacaggag aanaggtctt 300

<210> 31
 <211> 284
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 31
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 ttgtttgctt caaggacctt tcattcttcag gatttacagt gcattctgaa agaggagaca 120
 tcaaacagaa ttaggagttg tgcaacagct cttttgagag gaggcctaaa ggacaggaga 180
 aaaggtcttc aatcggtgaa agaaaattaa atgttgattt aaatagatca ccagctagtt 240
 tcagagttac catgtacgta ttccactagc tgggttctgt attt 284

<210> 32
 <211> 275
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 32
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 gacgtggccc tggagcacca tgaggagtgt gactgtgtgt gcagagggag cacaggggga 120
 tagccgcac accaccagca gctcttgccc agagctgtgc agtgcagtgg ctgattctat 180
 tagagaacgt atgcgttatc tccatcctta atctcagttg tttgcttcaa ggacctttca 240
 tcttcaggat ttacagtgc tttctgaaaga ggaga 275

<210> 33
 <211> 278
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<220>
 <221> n = a, t, g or c
 <222> (248)

<400> 33
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 ttctattaga gaacgtatgc gttatctcca tccttaatct cagttgtttg cttcaaggac 120

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ctttcatctt caggatttac agtgcattct gaaagaggag acatcaaaca gaattaggag 180
ttgtgcaaca gctcttttga gaggaggcct aaaggacagg agaaaagggtc ttcaatcgtg 240
gaaagaanat taaatgttgt attaaataga caccagct 278

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<210> 34
<211> 275
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Human EST

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<400> 34
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ttctattaga gaacgtatgc gttatctcca tccttaatct cagttgtttg cttcaaggac 120
ctttcatctt caggatttac atgcattctg aaagaggaga catcaaacag aattaggagt 180
tgtgcaacag ctctttttgag aggaggccta aaggacagga gaaaagggtc tcaatcgtgg 240
aaagaaaatt aaatgttgtg ttaaatagat cacca 275

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<210> 35
<211> 261
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Human EST

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<400> 35
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ataccagcag gtccttcagt tgagaccaa gaccgggtgtc aggggattgc acaaatcact 180
caccgacgtg gccctggagc accatgagga gtgtgactgt gtgtgcagag ggagcacagg 240
aggatagccg catcaccacc a 261

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<210> 36
<211> 279
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Human EST

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<400> 36
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acacctcgta acttctcagt gtccataagg gaagaactaa agagaaccga taccattttc 120
tggccagggt gtctcctggt taaacgctgt ggtgggaact gtgcctgttg tctccacaat 180
tgcaatgaat gtcaatgtgt cccaagcaaa gttactaaaa aataccacga ggtccttcag 240
ttgagaccaa agaccgggtg caggggattg cacaaatca 279

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<210> 37
<211> 262
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Human EST

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<400> 37
aggaaatcaa attaggataa gatttgtatc tgatgaatat tttccttctg aaccttctaa 60
cagaggaggt aagattatac agctgcacac ctcgtaactt ctcaagtgtcc ataaggggaag 120
aactaaagag aaccgatacc attttctggc caggttgtct cctgggttaa cgctgtggtg 180
ggaactgtgc ctgtgtgtct ccacaattgc aatgaatgtc aatgtgtccc aagcaaagtt 240
actaaaaaat accacgaggt cc 262

<210> 38
<211> 289
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (35)

<220>
<221> n = a, t, g or c
<222> (51)

<220>
<221> n = a, t, g or c
<222> (125)

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gaaanaaaaat taaatgttgt attaaataga tcaccagcta gtttcagagt taccatgtac 180
gtattccact agctgggttc tgtatttcag ttctttcgat acggcttagg gtaatgtcag 240
tacaggaaaa aaactgtgca agtgagcacc tgattccgtt gccttgctt 289

<210> 39
<211> 245
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 39
caaagttact aaaaaatacc acgaggtcct tcagttgaga ccaaagaccg gtgtcagggg 60
attgcacaaa tcactcaccg acgtggccct ggagcaccat gaggagtgtg actgtgtgtg 120
cagagggagc acaggaggat agccgcatca ccaccagcag ctcttgccca gagctgtgca 180
gtgcagtggc tgattctatt agagaacgta tgcgttatct ccattcctaa tctcagttgt 240
ttgct 245

<210> 40
<211> 247
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (2)

<220>
<221> n = a, t, g or c
<222> (86)

<220>
<221> n = a, t, g or c
<222> (191)

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ctccatcctt aatctcagtt gtttgnttca aggacctttc atcttcagga tttacagtgc 120
attctgaaag aggagacatc aaacagaatt aggagttgtg caacagctct tttgagagga 180
ggcctaaagg ncaggagaaa aggtcttcaa tcgtggaaag aaaattaaat gttgtattaa 240
atagatc 247

<210> 41
<211> 232
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

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cagaggaggt aagattatac agctgcacac ctcgtaactt ctcagtgtcc ataagggaag 120
aactaaagag aaccgatacc attttctggc caggttgtct cctgggttaa cgctgtgggtg 180
ggaactgtgc ctgttgtctc cacaattgca atgaatgtca atgtgtccca ag 232

<210> 42
<211> 253
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 42
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aggaggccta aaggacagga gaaaagggtct tcaatcgtgg aaagaaaatt aaatgttgta 120
ttaaatagat caccagctag tttcagagtt accatgtacg tattccacta gctgggttct 180
gtattttcagt tctttcgata cggcttaggg taatgtcagt acaggaaaaa aactgtgcaa 240
gtgagcacct gat 253

<210> 43
<211> 265
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (238)

<220>
<221> n = a, t, g or c
<222> (246)..(247)

<220>
<221> n = a, t, g or c
<222> (252)

<220>
<221> n = a, t, g or c
<222> (257)

<400> 43
tgcaacagct cttttgagag gaggcctaaa ggacaggaga aaaggctcttc aatcgtggaa 60
agaaaaattaa atgttgtatt aaatagatca ccagctagtt tcagagttac catgtacgta 120
ttccactagc tgggttctgt atttcagttc tttcgatacg gcttagggta atgtcagtac 180
aggaaaaaaa ctgtgcaagt gagcacctga ttccgttgcc ttgcttaacc ctaaagcncc 240
atgtcnnggg cnaaaancga aaaat 265

<210> 44
<211> 291
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (61)

<220>
<221> n = a, t, g or c
<222> (66)

<220>
<221> n = a, t, g or c
<222> (88)

<220>
<221> n = a, t, g or c
<222> (141)

<220>
<221> n = a, t, g or c
<222> (155)

<220>
<221> n = a, t, g or c
<222> (172)

<220>
<221> n = a, t, g or c

<222> (177)

<220>

<221> n = a, t, g or c

<222> (227)

<220>

<221> n = a, t, g or c

<222> (229)

<220>

<221> n = a, t, g or c

<222> (274)

<400> 44

```
ccttaatctc agttgtttgc ttcaaggacc tttcatcttc aggatttaca gtgcattctg 60
naangangaga catcaaacag aattaggngt tgtgcaaaag ctcttttgag aggaggccta 120
aaggacagga gaaaaggctc ncaatcgtgg aaagnaaatt aaatgttgta tnaaatngat 180
caccagctag tttcagagtt accatgtacg tattccacta gctgggncng tattcagtct 240
ttcggaaacgg cttagggtta tgtcagtaca gganaaaaaac tgtgcagtga g 291
```

<210> 45

<211> 279

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (205)

<220>

<221> n = a, t, g or c

<222> (240)

<220>

<221> n = a, t, g or c

<222> (254)

<400> 45

```
attaaataga tcaccagcta gtttcagagt taccatgtac gtattccact agctgggttc 60
tgtatttcag ttctttcgat acggcttagg gtaatgtcag tacaggaaaa aaactgtgca 120
agtgagcacc tgattccggt gccttggcctt aactctaaag ctccatgtcc tgggcctaaa 180
atcgtataaaa atctggattt ttttnttttt ttttgcgcat attcacatat gttaaaccagn 240
acattctatg tacnacaaac ctgggttttta aaaaggaac 279
```

<210> 46

<211> 181

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 46
ggctagtttc agagttacca tgtacgtatt ccactagctg ggttctgtat ttcagttctt 60
tcgatacggc ttagggtaat gtcagtacag gaaaaaaact gtgcaagtga gcacctgatt 120
ccgttgccctt gcttaactct aaagctccat gtcttgggcc taaaatcgta taaaatctgg 180
a 181

<210> 47
<211> 184
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (54)

<400> 47
aatagatcac cagctagttt cagagttacc atgtacgtat tccactagct gggntctgta 60
tttcagttcc ttctgatacg gcttagggta atgtcagtac agggaaaaaag ctgtgcaagt 120
gagcacctga ttccgttgcc ttgcttaact cttaaagctcc atgtcctggg cctaaaaatcg 180
tata 184

<210> 48
<211> 290
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 48
aaaggaacta tgttgctatg aattaaactt gtgtcgtgct gataggacag actggatttt 60
tcatatttct tattaataatt tctgccattht agaagaagag aactacattc atggtttgga 120
agagataaac ctgaaaagaa gagtggcctt atcttcactt tatcgataag tcagttttatt 180
tgtttcattg tgtacatttt tatattctcc ttttgacatt ataactgttg gctttttctaa 240
tcttggttaa tatatctatt ttaccacaaag gtattttaata ttctttttta 290

<210> 49
<211> 300
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (41)

<220>
<221> n = a, t, g or c
<222> (293)

<400> 49
 cacaaatcac tcaccgacgt ggccctggag caccatgagg ngtgtgactg tgtgtgcaga 60
 gggagcacag gaggatagcc gcatcaccac cagcagctct tgcccagagc tgtgcagtgc 120
 agtggctgat tctattagag aacgtatgcg ttatctccat ccttaatctc agttgtttgc 180
 ttcaaggacc tttcatcttc aggatttaca gtgcattctg aaagaggaga catcaaacag 240
 aattaggagt tgtgcaacag ctcttttgag aggaggctaa aggacaggag aanaggctct 300

<210> 50
 <211> 284
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 50
 tgcagtgcag tggctgattc tattagagaa cgtatgcggt atctccatcc ttaatctcag 60
 ttgtttgctt caaggacctt tcatcttcag gatttacagt gcattctgaa agaggagaca 120
 tcaaacagaa ttaggagttg tgcaacagct cttttgagag gaggcctaaa ggacaggaga 180
 aaaggtcttc aatcgtggaa agaaaattaa atgttgattt aaatagatca ccagctagtt 240
 tcagagttac catgtacgta ttccactagc tgggttctgt attt 284

<210> 51
 <211> 301
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<220>
 <221> n = a, t, g or c
 <222> (47)

<220>
 <221> n = a, t, g or c
 <222> (253)

<400> 51
 cttgttaaatt atatctatatt ttaccaaagg tatttaatat tctttantta tgacaactta 60
 gatcaactat ttttagcttg gtaaattttt ctaaacacaa ttgttatagc cagaggaaca 120
 aagatgatat aaaatattgt tgctctgaca aaaatacatg tatttcattc tcgtatgggtg 180
 ctagagttag attaactctgc attttaaaaa actgaattgg aatagaattg gtaagttgca 240
 aagacttttt ganaataatt aaattatcat atcttccatt cctgttattg ggggagaaaa 300
 t 301

<210> 52
 <211> 275
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 52
 cacgaggtcc ttcagttgag accaaagacc ggtgtcaggg gattgcacaa atcactcacc 60
 gacgtggccc tggagcacca tgaggagtgt gactgtgtgt gcagagggag cacaggggga 120

tagccgcac accaccagca gctcttgccc agagctgtgc agtgcagtgg ctgattctat 180
tagagaacgt atgcgttata tccatcctta atctcagttg ttgcttcaa ggacctttca 240
tcttcaggat ttacagtga ttctgaaaga ggaga 275

<210> 53
<211> 288
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 53
ttaaaaagga actatgttgc tatgaattaa acttgtgtca tgctgatagg acagactgga 60
tttttcatat ttcttattaa aatttctgcc atttagaaga agagaactac attcatgggt 120
tggaagagat aaacctgaaa agaagagtgg ccttatcttc actttatcga taagtcagtt 180
tatttgtttc attgtgtaca tttttatatt ctcttttga cattataact gttggctttc 240
taatctgtta aatatatcta tttttaccaa aggtatttaa tattcttt 288

<210> 54
<211> 278
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (248)

<400> 54
ggaggatagc cgcacacca ccagcagctc ttgcccagag ctgtgcagtg cagtggctga 60
ttctattaga gaacgtatgc gttatctcca tcttaatat cagttgtttg cttcaaggac 120
ctttcatctt caggatttac agtgcattct gaaagaggag acatcaaaca gaattaggag 180
ttgtgcaaca gctcttttga gaggaggcct aaaggacagg agaaaaggtc ttcaatcgtg 240
gaaagaanat taaatgttgt attaaataga caccagct 278

<210> 55
<211> 275
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<400> 55
ggaggatagc cgcacacca ccagcagctc ttgcccagag ctgtgcagtg cagtggctga 60
ttctattaga gaacgtatgc gttatctcca tcttaatat cagttgtttg cttcaaggac 120
ctttcatctt caggatttac atgcattctg aaagaggaga catcaaacag aattaggagt 180
tgtgcaacag ctcttttgag aggaggccta aaggacagga gaaaaggctc tcaatcgtg 240
aaagaaaatt aaatgttgta ttaaatagat cacca 275

<210> 56
<211> 261
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 56

```
gagaaccgat accatTTTtct ggccaggTtg tctcctggTt aaacgctgtg gtgggaaactg 60
tgctgtTgt ctccacaatt gcaatgaatg tcaatgtgtc ccaagcaaag ttactaaaaa 120
ataccacgag gtcctTcagt tgagaccaa gaccggTgtc aggggattgc acaaatcact 180
caccgacgtg gccctggagc accatgagga gtgtgactgt gtgtgcagag ggagcacagg 240
aggatagccg catcaccacc a 261
```

<210> 57

<211> 279

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 57

```
agaaaatcca gagtggTgga tctgaacTt ctaacagagg aggtAagatt atacagctgc 60
acacctcgta actTctcagt gtccataagg gaagaactaa agagaaccga taccatTTTt 120
tgccaggTt gtctcctggT taaacgctgt ggtgggaaact gtgcctgtTg tctccacaat 180
tgcaatgaat gtcaatgtgt cccaagcaa gttactaaaa aataccacga ggtcctTcag 240
ttgagaccaa agaccggTgt caggggattg cacaaatca 279
```

<210> 58

<211> 259

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 58

```
agatgatata aaatattgtt gctctgacaa aaatacatgt atttcattct cgtatggTgc 60
tagagttaga ttaatctgca ttttaaaaaa ctgaattgga atagaattgg taagttgcaa 120
agactTTTtg aaaataatta aattatcata tcttccattc ctgttattgg agatgaaaaat 180
aaaaagcaac ttatgaaagt agacattcag atccagccat tactaaccta ttcctTTTTt 240
ggggaaatct gagcctagc 259
```

<210> 59

<211> 284

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 59

```
TTTTTaaaaa ggaactatgt tgctatgaat taaactTgtg tcgtgctgat aggacagact 60
ggatTTTTca tattTcttat taaaattTct gccatttaga agaagagaac tacattcatg 120
gtttggaaga gataaacctg aaaagaagag tggcctatct tcactTtatc gataagtcag 180
tttattTgtt tcattgtgta cattTTTtata ttctcTTtg acatataact gttggctTTt 240
ctaattctgtt aaatatatct atTTTtacca aaggTattta atat 284
```

<210> 60

<211> 262
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 60

```
aggaaatcaa attaggataa gatttgtatc tgatgaatat tttccttctg aaccttctaa 60
cagaggaggt aagattatac agctgcacac ctcgtaactt ctcagtgtcc ataaggggaag 120
aactaaagag aaccgatacc attttctggc caggttgtct cctgggttaaa cgctgtggtg 180
ggaactgtgc ctgttgtctc ccacaattgc aatgaatgtc aatgtgtccc aagcaaagtt 240
actaaaaaat accacgaggt cc                                     262
```

<210> 61

<211> 289

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (45)

<220>

<221> n = a, t, g or c

<222> (51)

<220>

<221> n = a, t, g or c

<222> (125)

<400> 61

```
atttcattctt caggattttac agtgcattct gaaanaggag aaatcaaaca naattaggag 60
ttgtgcaaca gctcttttga gaggaggcct aaaggacagg agaaaaggtc ttcaatcgtg 120
gaaanaaaat taaatgttgt attaaataga tcaccagcta gtttcagagt taccatgtac 180
gtattccact agctgggttc tgtatttcag ttctttcgat acggcttagg gtaatgtcag 240
tacaggaaaa aaactgtgca agtgagcacc tgattccggt gccttgctt          289
```

<210> 62

<211> 251

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (10)

<220>

<221> n = a, t, g or c

<222> (246)

<400> 62
 ttagcttggn aaatttttct aaacacaatt gttatagcca gaggaacaaa gatgatataa 60
 aatattgttg ctctgacaaa aatacatgta ttccattctc gtatgggtgct agagttagat 120
 taatctgcat tttaaaaaac tgaattggaa tagaattggg aagttgcaaa gactttttga 180
 aaataattaa attatcatat cttccattcc tggtattgga gatgaaaata aaaagcaact 240
 tatganagta g 251

<210> 63
 <211> 252
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<220>
 <221> n = a, t, g or c
 <222> (250)

<400> 63
 cttttttatg acaacttaga tcaactatct ttagcttggt aaatttttct aaacacaatt 60
 gttatagcca gaggaacaaa gatgatataa aatattgttg ctctgacaaa aatacatgta 120
 ttccattctc gtatgggtgct agagttagat taatctgcat tttaaaaaac tgaattggaa 180
 tagaattggg aagttgcaaa ggctttttga aaataattaa attatcatat cttccattcc 240
 tggtattggn gg 252

<210> 64
 <211> 245
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 64
 caaagtact aaaaaatacc acgaggtcct tcagttgaga ccaaagaccg gtgtcagggg 60
 attgcacaaa tcaactcacc acgtggccct ggagcaccat gaggagtgtg actgtgtgtg 120
 cagagggagc acaggaggat agccgcatca ccaccagcag ctcttgccca gagctgtgca 180
 gtgcagtggc tgattctatt agagaacgta tgcgttatct ccacccctaa tctcagttgt 240
 ttgct 245

<210> 65
 <211> 245
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Human EST

<400> 65
 agataaacct gaaaagaaga gtggccttat cttcacttta tcgataagtc agttttatttg 60
 ttccattgtg tacattttta tattctcctt ttgacattat aactgttggc ttttctaata 120
 ttgttaaata tatctatttt taccaaaggc atttaatat cttttttatg acaacttaga 180
 tcaactatct ttagcttggt aaatttttct aaacacaatt gttatagcca gaggaacaaa 240
 gatga 245

<210> 66
<211> 243
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 66
ctggattttt catatttctt attaaaattt ctgccattta gaagaagaga actacattca 60
tggtttggaa gagataaacc tgaaaagaag agtggcctta tcttcacttt atcgataagt 120
cagtttattt gtttcattgt gtacattttt atattctcct tttgacatta taactgttgg 180
cttttcta at ctgtttaa at atatctattt ttaccaaagg tatttaatat ttttttttat 240
gac 243

<210> 67
<211> 244
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (64)

<220>

<221> n = a, t, g or c

<222> (215)

<400> 67
gctcatattc acatatgtaa accagaacat tctatgtact acaaacctgg tttttaaaaa 60
gganctatgt tgctatgaat taaacttggt tcgtgctgat aggacagact ggatttttca 120
tatttcttat taaaatttct gccatttaga agaagagaac tacattcatg gtttgggaaga 180
gataaacctg aaaagaagag tggccttatc ttcantttat cgataagtca gtttatttgt 240
ttca 244

<210> 68
<211> 247
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (2)

<220>

<221> n = a, t, g or c

<222> (86)

<220>

<221> n = a, t, g or c

<222> (190)

<400> 68

```
angagttgcc cagagctgtg cagtgcagtg gctgattcta ttagagaacg tatgcgttat 60
ctccatcctt aatctcagtt gtttgnttca aggacctttc atcttcagga tttacagtgc 120
attctgaaag aggagacatc aaacagaatt aggagttgtg caacagctct tttgagagga 180
ggcctaaagg ncaggagaaa aggtcttcaa tcgtggaaag aaaattaaat gttgtattaa 240
atagatc 247
```

<210> 69

<211> 233

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 69

```
aaagatgata taaaatattg ttgctctgac aaaaatacat gtatttcatt ctcgatatggt 60
gctagagtta gattaatctg cattttaaaa aactgaattg gaatagaatt ggtaagttgc 120
aaagactttt tgaaaataat taaattatca tatcttccat tcctgttatt ggagatgaaa 180
ataaaaagca acttatgaaa gtagacattc agatccagcc attactaacc tat 233
```

<210> 70

<211> 232

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 70

```
aggaaatcaa attaggataa gatttgtatc tgatgaatat tttccttctg aaccttctaa 60
cagaggaggt aagattatac agctgcacac ctcgtaactt ctcagtgtcc ataagggaag 120
aactaaagag aaccgatacc attttctggc caggttgtct cctgggttaa cgctgtgggtg 180
ggaactgtgc ctgttgtctc cacaattgca atgaatgtca atgtgtccca ag 232
```

<210> 71

<211> 253

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 71

```
gtgcattctg aaagaggaga catcaaacag aattaggagt tgtgcaacag ctcttttgag 60
aggaggccta aaggacagga gaaaagggtct tcaatcgtgg aaagaaaatt aaatgttgta 120
ttaaatagat caccagctag tttcagagtt accatgtacg tattccacta gctgggttct 180
gtatttcagt tctttcgata cggcttaggg taatgtcagt acaggaaaaa aactgtgcaa 240
gtgagcacct gat 253
```

<210> 72

<211> 233

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (48)

<400> 72

```
tgtacatttt tatattctcc ttttgacatt ataactgttg gcttttcnaa tcttggttaa 60
tatatctatt tttaacaaag gtatttaata ttctttttta tgacaactta gatcaactat 120
ttttagcttg gtaaattttt ctaaacacaa ttgttatagc cagaggaaca aagatgatat 180
aaaatattgt tgctctgaca aaaatacatg tatttcattc tcgtatggtg cta 233
```

<210> 73

<211> 250

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (53)

<400> 73

```
cacaattggt atagccagag gaacaaagat gatataaaat attggtgctc tgncaaaaat 60
acatgtattt cattctcgta tgggtgctaga gttagattaa tctgcatttt aaaaaactga 120
attggaatag aattggtaag ttgcaaagac tttttgaaaa taattaaatt atcatatctt 180
ccattcctgt tattggagat gaaaataaaa agcaacttat gaaagtaaatt tcagatccac 240
cattactaac 250
```

<210> 74

<211> 247

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 74

```
atttcattct cgtatggtgc tagagttaga ttaatctgca ttttaaaaaa ctgaattgga 60
atagaattgg taagttgcaa agactttttg aaaataatta aattatcata tcttccattc 120
ctgttattgg agatgaaaat aaaaagcaac ttatgaaagt agacattcag atccagccat 180
tactaaccta ttcctttttt ggggaaatct gagcctagct cagaaaaaca taaagcacct 240
tgaaaaaa 247
```

<210> 75

<211> 265

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (238)

<220>

<221> n = a, t, g or c

<222> (246)..(247)

<220>

<221> n = a, t, g or c

<222> (252)

<220>

<221> n = a, t, g or c

<222> (257)

<400> 75

```
tgcaacagct cttttgagag gaggcctaaa ggacaggaga aaaggtcttc aatcgtggaa 60
agaaaaattaa atgttgattt aaatagatca ccagctagtt tcagagttac catgtacgta 120
ttccactagc tgggttctgt atttcagttc tttcgatacg gcttagggta atgtcagtac 180
agggaaaaaaa ctgtgcaagt gagcacctga ttccgttgcc ttgcttaacc ctaaagcncc 240
atgtcnnggg cnaaaancga aaaat                                     265
```

<210> 76

<211> 251

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (134)

<220>

<221> n = a, t, g or c

<222> (157)

<400> 76

```
tttctaaaca caattgttat agccagagga acaaagatga tataaaatat tgttgctctg 60
acaaaaatac atgtatttca ttctcgtatg gtgctagagt tagattaatc tgcattttta 120
aaaactgaat tggnatagaa ttggtaagtt gcaaaagnctt tttgaaaata attaaattat 180
catatcttcc attcctgtta ttggaggatg gaaaataaaa agcaacttat ggaaagtagg 240
acattcagat c                                     251
```

<210> 77

<211> 291

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (61)

<220>
<221> n = a, t, g or c
<222> (66)

<220>
<221> n = a, t, g or c
<222> (88)

<220>
<221> n = a, t, g or c
<222> (141)

<220>
<221> n = a, t, g or c
<222> (155)

<220>
<221> n = a, t, g or c
<222> (172)

<220>
<221> n = a, t, g or c
<222> (177)

<220>
<221> n = a, t, g or c
<222> (227)

<220>
<221> n = a, t, g or c
<222> (229)

<220>
<221> n = a, t, g or c
<222> (284)

<400> 77
ccttaatctc agttgtttgc ttcaaggacc tttcatcttc aggatttaca gtgcattctg 60
naagangaga catcaaacag aattaggngt tgtgcaaaaag ctcttttgag aggaggccta 120
aaggacagga gaaaagggtct ncaatcgtgg aaagnaaatt aaatgttgta tnaaatngat 180
caccagctag tttcagagtt accatgtacg tattccacta gctgggncng tattcagtct 240
ttcggaacgg cttagggttaa tgtcagtaca gganaaaaac tgtgcagtga g 291

<210> 78
<211> 253
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (84)

<220>
<221> n = a, t, g or c
<222> (143)

<400> 78
gtactacaaa cctgggtttt aaaaaggaac tatgttgcta tgaattaaac ttgtgtccat 60
gctgatagga cagactggat ttnccatatt tcttattaaa atttctgcca tttagaagaa 120
gagaactaca ttcattgggtt ggnagagata aacctgaaaa gaagagtggc cttatcttca 180
ctttatcgat aagtcagttt atttgtttca tgtgtacatt tttatattct cctttgacat 240
ataacgtggc ttt 253

<210> 79
<211> 204
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (190)

<400> 79
ttatattctc cttttgacat tataactggt ggcttttcta atcttggtta atatattctat 60
ttttacaaaa ggtatttaaat attctttttt atgacaactt agatcaacta ttttttagctt 120
ggtaaaatttt tctaaacaca attgttatag ccagaggaac aaagatgata taaaatattg 180
ttgctctgan aaaaatacat gtat 204

<210> 80
<211> 303
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (2)

<220>
<221> n = a, t, g or c
<222> (87)..(114)

<220>
<221> n = a, t, g or c
<222> (267)

<220>
<221> n = a, t, g or c
<222> (272)

<220>
<221> n = a, t, g or c

<222> (300)

<400> 80

```
anactgtgca agtgagcacc tgattccggt gccttgctta actctaaagc tccatgtcct 60
gggcctaaaa tcgtataaaa tctggannnn nnnnnnnnnn nnnngctcat attcacatat 120
gtaaaccaga acattctatg tactacaaac ctgggtttta aaaaggaact atgttgctat 180
gaattaaact tgtgtcgtgc tgataggaca gactggattt ttcataattc ttattaaaaat 240
ttctgccatt agaagaagag aactacnttc anggtttgga agagataacc ctgaaaagan 300
ggg 303
```

<210> 81

<211> 228

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (112)

<400> 81

```
gctcatattc acatatgtaa accagaacat tctatgtact acaaacctgg tttttaaaaa 60
ggaactatth gctatgaatt aaacttgtgt cgtgctgata ggacagactg gntttttcat 120
atttcttatt anaatttctg ccattagaag aagagaacta cattcatggt ttggaagaga 180
taaactgaa aagaagagtg gcctatthca ctttatcgat aagtcagt 228
```

<210> 82

<211> 193

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 82

```
gctcatattc acatatgtaa accagaacat tctatgtact acaaacctgg tttttaaaaa 60
ggaactatgt tgctatgaat taaacttgtg tcgtgctgat aggacagact ggatttttca 120
tatttcttat taaaatttct gccatttaga agaagagAAC tacattcatg gtttggaaga 180
gataaacctg aaa 193
```

<210> 83

<211> 282

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (42)

<220>

<221> n = a, t, g or c

<222> (94)

<220>

<221> n = a, t, g or c

<222> (235)

<220>

<221> n = a, t, g or c

<222> (269)

<400> 83

```
aaaaaactga attggaatag aattggtaag ttgcaaagac tntttgaaaa taattaaatt 60
atcatatctt ccattcctgt tattggagat gaanataaaa agcaacttat gaaagtagac 120
attcagatcc agccattact aacctattcc tttttgggg aaatctgagc ctagctcaga 180
aaaacataaa gcaccttgaa aaagacttgg cagcttcctg ataaagcgtg ctgtntgtca 240
gtaggaacac atcctattta ttgtgatgnt gtggtttatt at 282
```

<210> 84

<211> 279

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (205)

<220>

<221> n = a, t, g or c

<222> (240)

<220>

<221> n = a, t, g or c

<222> (254)

<400> 84

```
attaaataga tcaccagcta gtttcagagt taccatgtac gtattccact agctgggttc 60
tgtatttcag ttctttcgat acggcttagg gtaatgtcag tacaggaaaa aaactgtgca 120
agtgagcacc tgattccggt gccttggtt aactctaaag ctccatgtcc tgggcctaaa 180
atcgtataaa atctggattt tttntttt ttttgcgcat attcacatat gtaaaccagn 240
acattctatg tacnacaaac ctggttttta aaaaggaac 279
```

<210> 85

<211> 181

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 85

```
ggctagtttc agagttacca tgtacgtatt ccactagctg ggttctgtat ttcagttctt 60
tcgatacggc ttagggtaat gtcagtacag gaaaaaaact gtgcaagtga gcacctgatt 120
cggttgcctt gcttaactct aaagctccat gtccctgggc taaaatcgta taaaatctgg 180
```

a

181

<210> 86

<211> 269

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 86

```
tggttaagttg caaagacttt ttgaaaataa tttaaattatc atatcttcca ttcctgttat 60
tggagatgaa aataaaaagc aacttatgaa agtagacatt cagatccagc cattactaac 120
ctattccttt ttggggaaa tctgagccta gctcagaaaa acataaagca ccttgaaaaa 180
gacttggcag cttcctgata aagcgtgctg tgctgtgcag tagggaacac atcctattta 240
ttgtgatgtt gtggtttata tcctaaacc                                     269
```

<210> 87

<211> 184

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (54)

<400> 87

```
aatagatcac cagctagttt cagagttacc atgtacgtat tccactagct gggntctgta 60
tttcagttcc ttctgatacg gcttagggta atgtcagtac aggaaaaaag ctgtgcaagt 120
gagcacctga ttccgttgcc ttgcttaact ctaaagctcc atgtcctggg cctaaaatcg 180
tata                                             184
```

<210> 88

<211> 164

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (53)

<220>

<221> n = a, t, g or c

<222> (78)..(79)

<220>

<221> n = a, t, g or c

<222> (106)

<220>

<221> n = a, t, g or c

<222> (119)

<220>

<221> n = a, t, g or c

<222> (121)

<400> 88

```
agataaacct gaaaagaaga gtggccttat nttcacttta tcgataagtc agnttatttg 60
tttcattgtg tacatttnna tattctcctt ttgacattat aactgntggc ttttctaanc 120
ntgttaaata tatctatttt taccaaaggt atttaatat cttt 164
```

<210> 89

<211> 143

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 89

```
tatggtgcta gagttagatt aatctgcatt ttaaaaaact gaattggaat agaattggta 60
agttgcaaag acttttttgaa aataattaaa ttatcatatc ttccattcct gttattggag 120
atgaaaataa aaagcaactt atg 143
```

<210> 90

<211> 164

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (35)

<220>

<221> n = a, t, g or c

<222> (51)

<220>

<221> n = a, t, g or c

<222> (132)

<220>

<221> n = a, t, g or c

<222> (141)

<220>

<221> n = a, t, g or c

<222> (145)..(146)

<400> 90

```
ttttttnttt tgctcatatt cacatatgta aaccngaaca ttctatgtac nacaaacctg 60
gttttttaaaa aggaactatg ttgctatgaa ttaaacttgt gtcgtgctga taggacagac 120
tggatttttc anatttctta ntaannttcc tgccatttag aaga 164
```


<210> 91
<211> 244
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (98)..(115)

<400> 91
gtacaggaaa aaaactgtgc aagtgagcac ctgattccgt tgccttgctt aactctaaag 60
ctccatgtcc tgggcctaaa atcgtataaa atctggannn nnnnnnnnnn nnnnngctca 120
tattcacata tgtaaaccag aacattctat gtactacaaa cctgggtttt aaaaagggaac 180
tatgttgcta tgaattaaac ttgtgtcgtg ctgataggac agactggatt tttcatattt 240
ctta 244

<210> 92
<211> 254
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (20)

<220>
<221> n = a, t, g or c
<222> (26)

<220>
<221> n = a, t, g or c
<222> (52)

<220>
<221> n = a, t, g or c
<222> (61)

<220>
<221> n = a, t, g or c
<222> (144)

<220>
<221> n = a, t, g or c
<222> (225)

<220>
<221> n = a, t, g or c
<222> (236)

<220>
<221> n = a, t, g or c
<222> (240)

<220>
<221> n = a, t, g or c
<222> (242)

<400> 92
gcaaagactt tttganaatn attaanattat catatcttcc attcctgtta tnggagatga 60
naataaaaag caacttatga aagtagacat tcagatccag ccattactaa cctattcctt 120
ttttggggaa atctgagcct agcncagaaa aacataaagc accttgaaaa agacttggca 180
gcttcctgat aaagcgtgct gtgctgtgca gtaggaacac atccnattta ttgtgntgtn 240
gnggttttat gatc 254

<210> 93
<211> 243
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (103)..(120)

<400> 93
tgtcagtaca ggaaaaaac tgtgcaagtg agcacctgat tccgttgctt tgcttaactc 60
taaagctcca tgtcctgggc ctaaaatcgt ataaaatctg gannnnnnnn nnnnnnnnnn 120
gctcatattc acatatgtaa accagaacat tctatgtact acaaacctgg tttttaaaaa 180
ggaactatgt tgctatgaat taaacttggt tcatgctgat aggacagact ggatttttca 240
tat 243

<210> 94
<211> 244
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (136)

<400> 94
aattatcata tcttccattc ctgttatttg agatgnaaat aaaaagcaac ttatgaaagt 60
agacattcag atccagccat tactaaccta ttctttttt ggggaaatct gagcctagct 120
cagaaaaaca taaagcacct tgaaaaagac tgtcagcttc ctgataaagc gtgctgtgct 180
gtgcagtagg aacacatcct atttattgtg atgttgtggt ttattatct taaactcgtt 240
ccat 244

<210> 95
<211> 152

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Human EST

<220>
<221> n = a, t, g or c
<222> (2)

<220>
<221> n = a, t, g or c
<222> (16)

<220>
<221> n = a, t, g or c
<222> (33)

<220>
<221> n = a, t, g or c
<222> (34)

<220>
<221> n = a, t, g or c
<222> (82)

<220>
<221> n = a, t, g or c
<222> (97)

<220>
<221> n = a, t, g or c
<222> (108)

<220>
<221> n = a, t, g or c
<222> (125)

<220>
<221> n = a, t, g or c
<222> (127)

<220>
<221> n = a, t, g or c
<222> (137)

<400> 95
anagatgata taaaanattg ttgctctgac aannatacat gtatttcatt ctcgatatggt 60
gctagagtta gattaatctg cnttttaaaa aactganttg gaatagantt ggtaagttgc 120
aaagncnttt gaaaatnatt aagttatcag at 152

<210> 96
<211> 292
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<400> 96

```
ttccattcct gttattggag atgaaaataa aaagcaactt atgaaagtag acattcagat 60
ccagccatta ctaacctatt ccttttttgg ggaaatctga gcctagctca gaaaaacata 120
aagcaccttg aaaaagactt ggcagcttcc tgataaagcg tgctgtgctg tgcagtagga 180
acacatccta tttattgtga tgttgtgggt ttattatcta aactctgttc catacacttg 240
tataaatata tggatatttt tatgtacaga agtatgtctc ttaaccagtt ca 292
```

<210> 97

<211> 308

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Human EST

<220>

<221> n = a, t, g or c

<222> (46)

<400> 97

```
cttcattcc tgttattgga gatgaaaata aaaagcaact tatganagta gacattcaga 60
tccagccatt actaacctat tccttttttg gggaaatctg agcctagctc agaaaaacat 120
aaagcacctt gaaaaagact tggcagcttc ctgataaagc gtgctgtgct gtgcagtagg 180
aacacatcct atttattgtg atgttgtgggt tttattatct taaactctgt tccatacact 240
tgtataaata catggatatt tttatgtaca gaagtatgtc tottaaccag ttcacttatt 300
gtacctgg 308
```